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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,417	12/28/2000	Seung Wook Jung	P-173	5677

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FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER	
BELLO, AGUSTIN	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/749,417	JUNG, SEUNG WOOK	
	Examiner	Art Unit	
	Agustin Bello	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,8-27 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,8-27 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 8-20, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kremer (U.S. Patent No. 5,406,401).

Regarding claim 1 and 29 Kremer teaches a method for controlling a signal path in an optical transmission system, comprises: the path provision step of providing a subscriber service path in the form of first and second service signal paths (Figure 1); the step of detecting a fail by periodically checking the first and second service paths (column 3 line 67 – column 4 line 6); and the step of carrying out a conventional auto path protection function if the first service signal path has a fail (column 3 lines 3-20), or carrying out a new auto path protection function through a message communication channel included in the overhead of a STM-n signal if the second service signal path has a fail. Kremer further teaches add/drop multiplexers capable of through paths and add/drop functions (column 3 lines 21-34).

Regarding claims 3 and 8, Kremer teaches add/drop multiplexers capable of through paths and add/drop functions (column 3 lines 21-34).

Regarding claims 9, 10, and 12, Kremer teaches the message transmission channel uses K1 and K2 bytes of the overhead of a STM-n signal for protection requests, Identification information, and status information (column 3 lines 3-20).

Regarding claims 11 and 13, Kremer appears to teach that the protection request signals and system status symbols include a no request signal representing that it is unnecessary to carry out protection; a switch signal for switching only the direction of a signal path; a round signal for assuring the continuity of a receiving signal; a reverse request switch signal which is a response signal to the switch signal; a reverse request round signal which is a response signal to the round signal; and a manual switch signal which is a manual path switch request an idle signal representing a normal state; a rounded signal representing the state in which switch protection is carried out; a manual switched signal representing the state in which manual path protection is carried out; a remote defect indication(RDI) signal notifying that a remote system signal has a defect; a signal fail(SF) signal representing the direction in which a fail is detected and an auto protection message is forwarded; and an initialization signal representing that a system is in the initialization state in that Kremer teaches that acknowledgment and transmission and reception of the K1 and K2 bytes for indicating failures and system status.

Regarding claim 14, Kremer teaches the step of protecting the new path is carried out only in the system of the ring operation mode (column 5 lines 26-54).

Regarding claim 15, Kremer teaches that in the step of protecting the new path, a message for protection (e.g. K1 byte column 3 lines 7) is transmitted in a single direction, and the system status (e.g. K2 byte column 3 lines 7) is transmitted in both directions.

Regarding claim 16, Kremer teaches the system having received the protection request signal delivers a response signal (e.g. acknowledgment column 3 lines 3) notifying the system having transmitted the request signal that the protection request signal has been normally carried out.

Regarding claim 17, Kremer inherently teaches that the system having received the response signal stops the delivering of the protection request signal (inherent in the purpose of the acknowledgement signal).

Regarding claim 18, Kremer teaches that in the step of protecting the new path, all systems before detecting a fail or carrying out protection are in the idle state (inherent e.g. no failures), and all systems in the idle state delivers a no-request signal(NRS) (inherent since there would be no need for service).

Regarding claim 19, Kremer teaches that in the step of protecting the new path, all fails that can be recognized by a system are represented as a signal fail(SF) (e.g. K1 and monitoring signal column 3 lines 3-20, column 3 line 67 – column 4 line 6), said SF including all fails that can affect path signal services (indicated in the monitoring signal).

Regarding claim 20, Kremer teaches that status information is exchanged between the nodes (via K2 byte).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kremer (U.S. Patent No. 5,406,401).

Regarding claim 2, Kremer differs from the claimed invention in that Kremer fails to specifically teach that the first service signal path is a path for providing voice and low-speed

data services, and the second service signal path is a path for providing high-speed and very high-speed data services. However, paths dedicated to either high-speed of low-speed services are well known in the art. Furthermore, Kremer teaches that the signals carried on the paths could range anywhere from OC-12 to OC-48 signals (column 3 lines 45-51), thereby teaching flexibility in the service rates available. Kremer's disclosure of a wide range of data rates would have suggested to one skilled in the art that it would have been possible to arrange the data according to the low and high services claimed by the applicant. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to arrange the communication signals of the system such that the first service signal path is a path for providing voice and low-speed data services, and the second service signal path is a path for providing high-speed and very high-speed data services.

Regarding claims 21-27, Kremer differs from the claimed invention in that Kremer fails to specifically teach the direction in which the various protection and status signals are sent and the direction in which the protected signals are sent after switching. However, one skilled in the art would clearly have had the ability to direct the signals in any desired direction including those claimed by the applicant. Furthermore, reversing and sending signals in opposite direction in an optical fiber communication system is very well known in the art. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have sent the protection and status information in the various directions claimed by the applicant.

Response to Arguments

5. Applicant's arguments filed 1/20/06 have been fully considered but they are not persuasive. The applicant argues that the add/drop multiplexer of Kremer is not capable of the

add/drop functionality claimed. However, the examiner remains unconvinced by the applicant's line of reasoning. The examiner maintains, as previously stated, that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case the examiner has concluded that the add/drop multiplexers of Kremer are capable of the add/drop/through connections in the direction claimed. The examiner believes that if the add/drop/through devices of the claimed invention can be configured to provide the signal paths as claimed, then, with no structural difference being apparent, the add/drop/through devices of the cited invention can also be configured to provide the signal paths as claimed.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a "combined" signal path; adding/dropping and passing through a signal ***at the same time***; that the same path signal may be added, dropped, or passed) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, it is not clear if the applicant intends "combined" to suggests that all the signal paths occur simultaneously.

7. Applicant's arguments filed 8/18/04 have been fully considered but they are not persuasive. The applicant argues that the add/drop multiplexer of Kremer is not capable of the add/drop functionality claimed, and more particularly a through-path function. However, the examiner disagrees. The add/drop multiplexer of Kremer is clearly capable of the through path functionality claimed. Furthermore, through-paths are well established functions of even conventional add/drop multiplexers. The applicant has failed to differentiate the claimed subject matter from that of the cited art. As such the examiner maintains his position.

8. In response to applicant's argument that the add/drop multiplexer supports the add, drop and through functions claimed, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

AGUSTIN BELLO
PRIMARY EXAMINER